REMARKS/ARGUMENTS

Original claims 1-17 remain in the application.

Claims 18-20 have been withdrawn in response to the notice of Restriction dated April 4, 2004.

Claims 1-17 have been rejected.

New claims 21-24 have been added in this paper.

Claims 1-15 have been rejected under 35 U.S.C. 102 (b), as being anticipated by Brown (US 5,960,207). To anticipate, "the reference must teach every aspect of the claimed invention either explicitly or impliedly. Any feature not directly taught must be inherently present." (M.P.E.P. 706.02) "A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *Verdegaal Bros. V. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987) (M.P.E.P. 2131). "The identical invention must be shown in as complete detail as contained in the ... claim." *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 1236, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989) (M.P.E.P. 2131) "The elements must be arranged as required by the claim, but this is not an *ipsissimis verbis* test, i.e., identity of terminology is not required." In re Bond, 910 F.2d 831, 15 USPQ2d 1566 (Fed. Cir. 1990) (M.P.E.P. 2131) With respect to independent claims 1 and 7, the Examiner has suggested that Brown teaches:

"a full-wave bridge rectifier (figure 6, 602) providing a rectified DC power output;

a micro-controller (figure 6, 642) for monitoring a component of said rectified DC power, evaluating said monitored component and providing an output signal in response to said evaluation of said monitored component;

an output switch (Q_c in combination with D_{F2}) operating in response to said output signal for selectively providing said rectified DC power and a constant average current (column 7, lines 29-31) to an electrical device connected electrically in series with said full-wave bridge rectifier and said output switch."

Applicants agree that Brown does teach a full-wave rectifier 602 at the AC line input and a controller 642, as suggested by the Examiner. However, the controller does not monitor a component of the rectified DC power from the full-wave rectifier, as required in claims 1 and 7. Brown's Figure 6 clearly shows that sensors 640 monitor the output from a half-wave rectifier 614 in the main power converter stage 606, not the full-wave rectifier 602 connected to the AC line input. A description of this configuration is found in column 6, lines 27-52. Further, independent claims 1 and 7 specifically require that the output switch operate "in response to said output signal for selectively providing said rectified DC power and a constant average current to an electrical device connected electrically in series with said full-wave bridge rectifier and said output switch." There is no teaching or suggestion in Brown that his power supply will provide "a constant average current to an electrical device connected electrically in series with the full-wave bridge rectifier and said output switch." Brown's only mention of an "average current", (column 7, lines 29-31, as noted by the Examiner) teaches that "The power factor controller 508 uses average current mode control operations to achieve fixed-frequency control with stability and low distortion." Therefore, the "average current", as taught by Brown, is used as a means "to achieve fixed-frequency control"; he does not provide a constant average current to an electrical device. Further, independent claims 1 and 7 require that the "electrical device" be " connected electrically in series with said full-wave bridge rectifier and said output switch." Brown's Figures 5-7 clearly show that there are no electrical devices "connected electrically in series with both the full-wave bridge rectifier and said output switch". Brown's Figures 5-7, also clearly show that Q_c is electrically in parallel with the full-wave bridge rectifier, not in series, as required in claims 1 and 7. Although Brown does not describe the function of D_{F2} in the specification, it appears to be a flyback diode, as is diode D_{F1}. Applicants do not understand the Examiner's contention that the combination of Q_c and D_{F2} are equivalent to the output switch 26 of the present application and request further clarification.

With respect to claims 2 and 8, the Examiner has suggested that Brown teaches that the monitored component of the rectified power is the voltage (column 6, lines 31-32). The applicants agree that one of the monitored components of Brown is the voltage. However, as discussed above, the rectified voltage being monitored by Brown is the output of the half-wave rectifier 614, not the full-wave rectifier as required in independent claims 1 and 7. As discussed

above, Brown does not anticipate independent claims 1 and 7, and therefore can not anticipate dependent claims 2 and 8.

With respect to claims 3, 4, 9 and 10, the Examiner has suggested Brown teaches that the monitored component is evaluated with respect to a set point measured in volt-seconds because the volt-second set point is inherent in the operation of Brown's pulse width modulator. Inherent is defined in Webster's New Universal Unabridged Dictionary as, among other things, "existing in someone or something as a natural and inseparable quality, characteristic or right". The Applicants argue that a set point measured in volt-seconds is ***not*** inherent, as defined in Webster's, to Brown's PWM. There are other known means to measure a set point for a PWM device, therefore, a set point measured in volt-seconds is not a natural and inseparable quality or characteristic of a PWM device. Particularly, in the case of Brown, the location of sensors 640 at the DC output terminal of the power supply is not conducive to providing a volt-second output for the PWM set point.

With respect to claims 5, 6, 11 and 12, the Examiner has suggested that said monitoring, evaluating and providing said output signal are concurrent operations initiated by a trigger and are inherent functions in a pulse width modulating system (column 7, lines 34-37). Again, the Applicants argue that these concurrent operations are ***not*** inherent to a PWM device and dispute the relevance of the paragraph of column 7, lines 34-37, with respect to these claims. However, applicants do agree that devices having microprocessors are well known to perform concurrent operations.

With respect to claims 13, 14 and 15, the Examiner has suggested that Brown teaches "a power supply includes a power factor correction converter and a controller that disables the power factor correction converter when the power supply is operating in a low power mode (column 3, lines 45-50). Claims 13-15 are inherently included functions for operating said power supply in the low power mode." Applicants agree that while some functions of Brown may be similar to those of the present invention, the purpose and result of the functions and the particular process for performing the functions are different and not anticipatory.

With respect to claim 13, Brown does not teach or suggest that his threshold is determined by a "trigger period and a particular electrical current level required to maintain said electrical device in a desired operating condition". Brown merely states his threshold is a "level indicative of a sleep or standby mode" and is a measured DC power value (column 7, lines 3-9). Therefore, the limitations set forth in claim 13 are not inherently described by Brown and are not anticipated by Brown.

With respect to claim 14, applicants agree that Brown does continuously evaluate the monitored component with respect to his threshold. However, claim 14 is dependent from claim 7, which is deemed to define over Brown, and is therefore deemed allowable.

With respect to claim 15, Brown's controller does not initiate an output placing said electrical device (Brown's computer) in a dropout condition (no power) and enter a sleep mode for a predetermined period of time. Brown's computer, not his controller, enters the sleep or standby mode (column 9, lines 12-16) independently of his controller. The computer remains in the sleep or standby mode for an undetermined period of time that is controlled by the amount DC power used by the computer and monitored by the controller. Therefore, Brown does not anticipate claim 15.

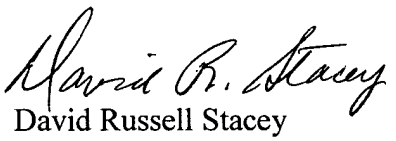
Claims 16 and 17 have been rejected under 35 U.S.C. 103 (a), as being unpatentable over Brown. (US 5,960,207) in view of Holmquist (US 6,243,112). The Examiner has suggested that Brown discloses the circuit of claim 15, but does not disclose the controller waking up after a predetermined period of time. The Examiner has further suggested that Holmquist teaches a method of and apparatus for constructing a control system and a control system created thereby which is based on multiple finite state machines (abstract, column 5, lines 19-50). The Examiner has further suggested that, "It would have been obvious to one having ordinary skill in the art at the time of the invention to modify Brown to wake up the micro-controller after a predetermined time. The motivation to provide the wake up signal after a predetermined time would be to be able to shut the power supply down completely when the supply is not needed to conserve power in a finite state machine that requires supply voltage periodically for its operation." Applicants agree that Holmquist teaches the need for "an operating system wakeup call" for a particular processor that will be running the method 400. However, in column 5, lines 39-50, referenced

by the Examiner, Holmquist teaches that "an external input" to the input receiver 124 stimulates the action to determine if the processor needs a "wakeup call". If the processor requires a "wakeup call" then a clock register 132 is updated with a time period for handling the input. Therefore, Holmquist's processor (controller) does not wakeup as a result of the predetermined period of time of a sleep mode expiring, as required in claims 16 and 17 of the present application. The Examiner's suggested combination of Brown and Holmquist would not teach or suggest the invention of claims 16 and 17, to one having ordinary skill in the art.

In reply to the Office Action dated August 9, 2004, the rejections set forth by the Examiner have been carefully considered and arguments have been presented herein to overcome the Examiner's rejections. Applicants have added new claims 21-24 defining in greater detail an embodiment of the invention as described in paragraph 0006 of the specification. No new matter has been added to the specification in this response. Applicants believe all pending claims are in condition for allowance and respectfully request a favorable reconsideration and allowance of this Application.

Please charge Deposit Account No. 19-3875 (ATA-5) in the amount of $72.00 to cover the four claims added to the subject application with the present Amendment. The Commissioner is hereby authorized to charge any additional fees or credit any overpayment to Deposit Account No. 19-3875 (ATA-5).

Respectfully submitted,



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